Hazardous Waste Management Commission Report

Quarterly Report

July through September 2010

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

The future plans for this completed Brownfields/Voluntary cleanup site in St. Louis includes redevelopment into a restaurant and banquet center.

Commissioners

Hazardous Waste Management Commissioners

James T. "Jamie" Frakes, Chair
Andrew Bracker, Vice-Chair
Elizabeth Aull
Michael R. Foresman
Charles Adams
Deron Sugg

"The goal of the Hazardous Waste Program is to protect human health and the environment from threats posed by hazardous waste."

For more information

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Hazardous Waste Program
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Missouri Department of Natural Resources
Hazardous Waste Program

September 2010 Program Update

Commissioners,
The next time you're on a trip across the state, or down the road to the grocery store, take a look around. Do you see any signs of hazardous wastes or materials?

Probably not. But, there's a good chance that someone from the Hazardous Waste Program has been to that area before for some type of regulatory purpose. Think about it this way: How many gas stations did you drive by? How many factories? How many renovated old buildings?

Not everyone has the opportunity to travel through the state with a Hazardous Waste Program employee. As you move down the highway, they are constantly pointing out former or current sites, telling stories of old gas stations, spills, inspections and cleanups.

It can be eye-opening.

And that brings us to this report – one way for us to tell these stories. To give not just you, the commissioners, an update of our activities for the past quarter, but to also share that with a larger audience.

In the Hazardous Waste Program, we're always looking for ways we can save money. We were doing this before the latest economic downturn and will continue to find ways to be good stewards of the funding we receive. The Budget and Planning Section's part of this report highlights some of our recent cost saving measures.

The Brownfields Voluntary Cleanup Program part of this report contains short summaries of different Brownfields sites in Missouri. Make sure you take a look at the mosaic ceiling that had previously been covered up in a St. Louis building. Through this program, older buildings in the state can reclaim their past glory and showcase forgotten architecture and artwork.

When you deal with hazardous waste, it may seem like good news is hard to come by. But a quick glance at the Federal Facilities' part of this report shows there is plenty worth celebrating. In the same quarter, the section was part of a group that received a 2010 Governor's Award for Quality and Productivity in the Technology in Government category, and one of the section's employees was selected as the September Missouri Department of Natural Resources' Employee of the month.

A Missouri superfund site was one of seven sites nationwide added to the National Priorities List. The Superfund portion of this report details our involvement with the Vienna Wells site, which included investigating a former hat factory and testing public water wells.

And the Tanks Section continues to show progress in addressing abandoned underground storage tank sites in the state through the use of American Recovery and Reinvestment Act funds. Through the use of this funding, two more sites in Missouri have been cleaned up and been issued No Further Action Letters.

I hope you enjoy reading through some of our accomplishments documented in this report.

Sincerely,

David J. Lamb

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Cost Saving Measures

The Hazardous Waste Program continually strives to identify and implement ways to reduce costs within the program, while continuing to carry out our mission in a meaningful manner. Although our efforts to be efficient stewards of taxpayer dollars have been ongoing, we have been particularly focused on cost-saving measures in recent years. Operating costs tend to fluctuate somewhat during any given year due to much of our field work being performed during the summer months. However, we believe we are seeing some downward trends in many of our costs, due to our cost-saving efforts.

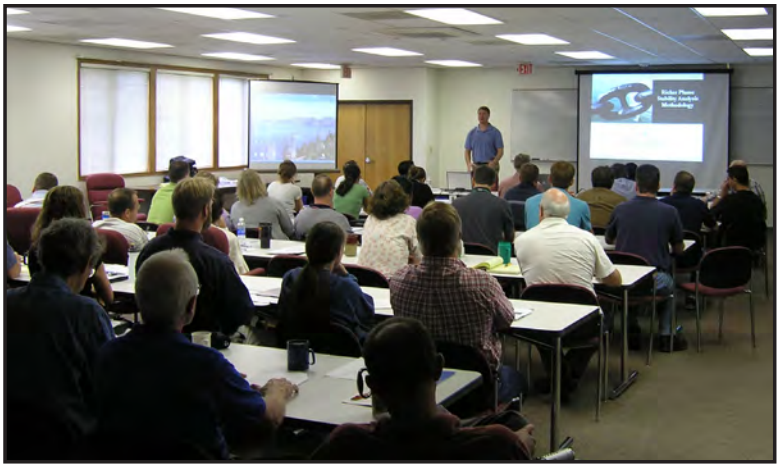
Personal Service

The department continues to evaluate each vacancy to determine whether the position is critical to the department's mission and has adequate funding. Currently, there are seven positions that have been held vacant for five or more months. We continue to review and prioritize new vacancies as they occur.

Expense and Equipment

Travel

- Worked to reduce in-state travel costs by limiting the number of trips and staff allowed to stay overnight.
- Looking more closely at the individual value of lodging, including cost savings from amenities such as meals provided as part of the lodging cost.
- Increased use of state travel cards to receive rebates.



One cost saving measure the program looks for is to bring training to Jefferson City. This eliminates the need for out of state staff travel for training.

- Encouraged employees to schedule in-state travel to accomplish visits to multiple sites during one trip.
- Mileage costs for the program have decreased, due in part to the department's decision to delay the replacement of state vehicles.
- the program has followed OA restrictions on out-of-state travel, reducing travel outside of Missouri.
- Where out-of-state travel is occurring, primarily only attending conferences reimbursed by other entities.

Equipment

- Delaying replacement of office equipment such as copiers. The average cost for a new copier is approximately $5,000.

Supplies

- Limiting supply orders by looking for less expensive alternatives or by eliminating the purchase all together.
- Where feasible, look for bulk purchases, creating economies of scale.
- Use electronic information to reduce supply and equipment costs.
- During the period January through March 2010, the three-month cost average for supplies in the program was $7,453. The three-month average for the period July through September 2010 was $4,882.
- Encouraged regulated entities to use electronic forms or print their own blank forms from the department website. This has reduced printing and mailing costs for the program.

Professional Development

- Looking for the most cost-effective way to provide training to staff, including bringing trainers to the state rather than having staff travel out of state for training.
- Evaluating individual training requests to approve only those mandatory or critical to the employee's ability to carry out their job duties.
- While the program continues to ensure staff have professional development opportunities, beginning in state fiscall year 2011, tuition reimbursement for staff was suspended. During state fiscal year 2010, these costs totaled more than $7,000.

Communication Services and Supplies

- Inactivated phone lines in offices where positions are being held vacant for at least 90 days. Since January, the program has inactivated approximately 40 of these phone lines.
- Reviewed cell phone usage to determine if needed and inactivate those not used frequently. Since January, the program has inactivated four cell phones.

Grants

- The program continues to look for alternative funding solutions in addition to enacting cost saving measures. The program has researched and applied for additional grant funding opportunities, such as a project though the National Institute of Health to study the use of hyperspectral imagery in the detection of fugitive heavy metals from mining and smelters.

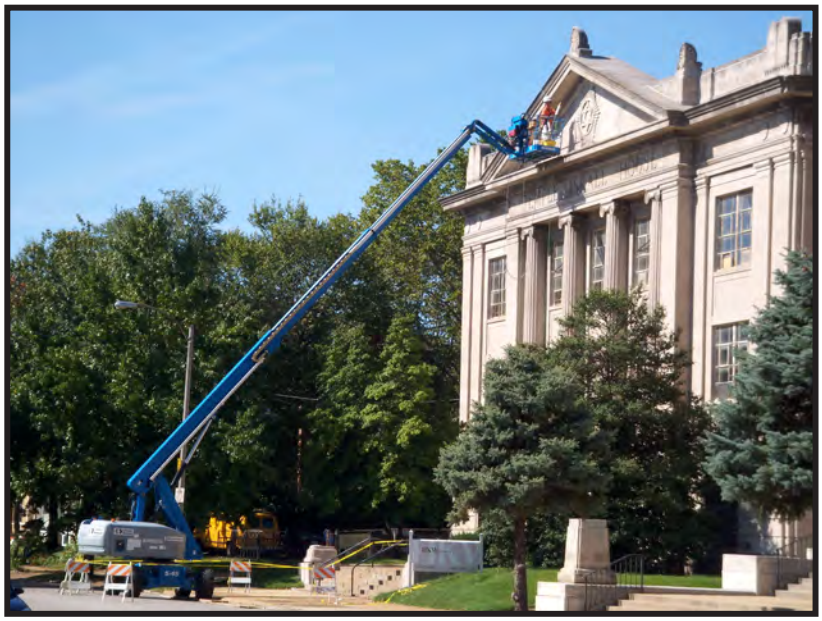
The Missouri Department of Natural Resources issued certificates of completion for seven Brownfields/ Voluntary Cleanup Program sites during July through September. Brownfields are real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

Through the Brownfields/Voluntary Cleanup Program, private parties agree to clean up a contaminated site and are offered some protection from future state and federal enforcement action at the site in the form of a "No Further Action" letter or "Certificate of Completion" from the state.

St. Louis Public Schools Special Education Building – St. Louis

The Missouri Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the St. Louis Public Schools Special Education Building site, located at 5017 Washington Place in St. Louis. The building is a three-story masonry and concrete building originally built around 1930 and originally used as a church. As of 2004, the building housed the administrative offices of the St. Louis School District Special Education division. The site was sold to "5017 Washington LLC" in October 2007.

Potential contaminants include asbestos, lead-based paint, along with miscellaneous materials such as flourescent bulbs and ballasts. The owners enrolled the site in the BVCP to address the contaminants.



The exterior of the St. Louis Public Schools Special Education Building is cleaned. The property was renovated into office spaces for an architectural firm.

During initial site assessments, conducted in late 2007 and early 2008, lead-based paint was found on the building's window frames and on stairwell handrail supports. The existing windows and frames were removed intact, disposed of as demolition debris and replaced with new non-lead-based paint window frames. The small amount of lead-based paint on the handrail supports was abated by wet-scraping and was wipe-tested to verify all lead-based paint had been removed. Waste manifests submitted with the final report shows proper disposal of all lead-based paint residue.

The initial site assessments also documented asbestos in various forms such as thermal system insulation around pipes and fittings, in the window caulking and roof flashing, in some of the floor tile and mastic and in the adhesive used behind chalkboards. All of the asbestos-containing material was removed with the exception of some thermal system insulation around pipes found in a crawl space below the first floor. Renovation of the interior resulted in the crawl space being nearly fully encased in concrete. An asbestos Operation and Maintenance Plan, which provides building managers with periodic inspection

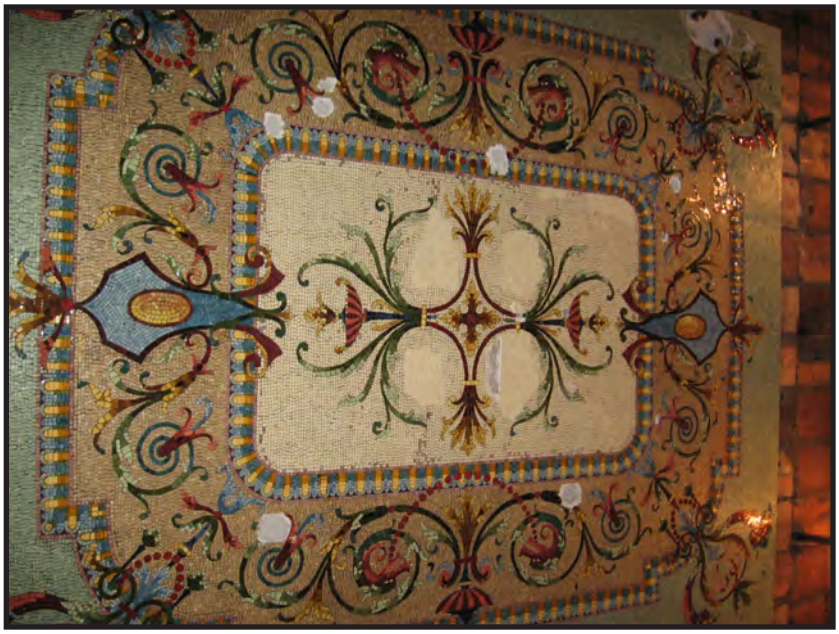
protocols and response actions necessary to ensure the safety of future workers or visitors, was filed in the property chain of title with the Recorder of Deeds. Waste manifests included with the report document nearly 100 cubic feet of asbestos-containing waste was taken to an approved landfill for disposal.

Other waste and recycling manifests document removal of any miscellaneous materials (more than 400 fluorescent bulbs and 200 ballasts) found during the initial site assessments. The department determined the site is safe for its intended use.

In February 2008, the Missouri Department of Economic Development approved nearly $244,000 in Brownfield Redevelopment tax credits to assist the owners in renovating this property into office spaces for an architectural firm.

Chemical Building - St. Louis

The Missouri Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Chemical Building site, located at 721 Olive St. in St. Louis. This site consists of a 17-story building constructed in approximately 1892, and has historically been used as a multi-tenant office and commercial building. It is located in the historic Old Post Office District of downtown St. Louis.



The building on the Chemical Building site, now known as The Alexa, had a mosaic ceiling that had been covered by a drop ceiling.

A Phase I Environmental Site Assessment indicated asbestos-containing materials, lead-based paint and light ballasts potentially containing polychlorinated biphenyls were present in the building. The asbestos-containing materials and light ballasts were removed in accordance with an approved remedial action plan. The lead-based paint was left in place and encapsulated. An Operations and Maintenance Plan for the encapsulated lead-based paint was approved and filed in the property's chain of title. The department determined the site is safe for its intended use.

The building has been redeveloped for mixed use, with condominiums on the upper floors and retail and commercial businesses on the lower floors. The developer received Brownfields tax credits for this project. The building is now known as The Alexa.

Interstate Grocery Building - Gryphon Building – Joplin

The Missouri Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Interstate Grocery Building - Gryphon Building site, located at 1027 South Main St. in Joplin. This commercial site is the former location of a paint manufacturing facility, lumber yard and warehouse. It is located in an historical area of Joplin that is being restored. Gryphon Building, LLC enrolled the site to investigate suspected lead, asbestos and lead-based paint contaminants.

Site assessments identified asbestos-containing material, lead-based paint and other miscellaneous hazardous materials in the building at the site. Approximately 26.43 tons of asbestos-containing material found on-site was removed and properly disposed. All final air samples passed the acceptable clearance level.

Lead-based paint within the building was abated using sandblasting and demolition techniques. Lead-based paint was removed from select building components including perimeter walls, floors, stair components and piping. All interior walls and windows were demolished. Waste was properly disposed off-site.

Polychlorinated Biphenyl containing light ballasts, fluorescent tubes, mercury thermostats, smoke alarms and exit signs were removed and properly disposed.

This parcel was brought into the program as one of three portions of a larger parcel of property located at the same address. This Certificate of Completion is being issued only for the building as described in the legal description contained within this Certificate of Completion. The remaining two portions, which include soil and groundwater investigation, are currently undergoing monitoring and risk management activities and are not included in this Certificate of Completion. The department determined the site is safe for its intended use.

The Gryphon Properties, LLC was awarded $1.7 million in Brownfields remediation tax credits from the Missouri Department of Economic Development. The site will be restored and redeveloped into an upscale mixed-use commercial business center with occupancy scheduled to begin in September 2010.

Cupples Station Building 8 East Parking Lot - St. Louis

The Missouri Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Cupples Station Building 8 East Parking Lot site, located at 928 Spruce Street in St. Louis. This property is part of the historic Cupples Station complex built in the late 1800s, and was historically used as warehouse space and a trading and market center for railroad freight. This site is located between Building 8 and Building 9, and is used as a parking lot.

Lead and mercury were detected in soils at levels exceeding Missouri Risk Based Corrective Action default target levels. However, the levels were below the risk based target levels for residential land use. Therefore, no remediation was necessary. Two adjacent parcels, one used as another parking lot, and one containing Cupples Building 9, were originally included with this property as one site, but have been divided into separate projects, with separate legal descriptions. The department determined the site is safe for its intended use.

The site will continue to be used as a parking lot in the Ballpark Lofts complex, which will include a mix of commercial, retail and residential use.

Cupples Station Building 9 - Ballpark Lofts I - St. Louis

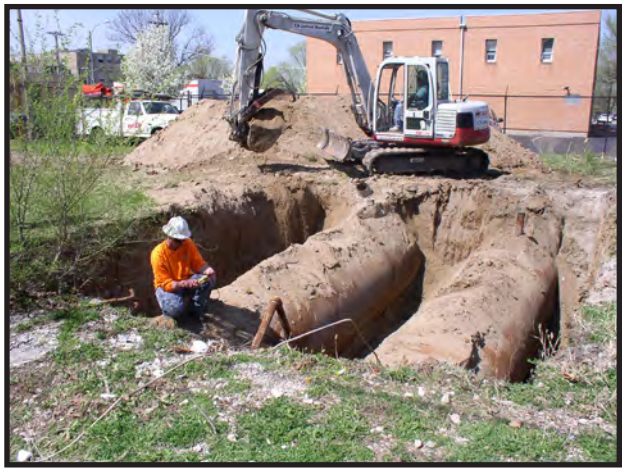
The Missouri Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Cupples Station Building 9 - Ballpark Lofts I site, located at 900-920 Spruce St. in St. Louis. This property is part of the historic Cupples Station complex built in the late 1800s, and was historically used as warehouse space and a trading and market center for railroad freight. Building 9 is a seven story building that has been vacant for more than 20 years.

This building contained asbestos, lead-based paint and various hazardous materials. These materials were removed in accordance with an approved remedial action plan. Two adjacent parcels, used as parking lots, that were originally included in the Cupples Building 9 site, are now separate projects from Building 9, with separate legal descriptions. The department determined the site is safe for its intended use.

The site will be redeveloped into part of the Ballpark Lofts complex, which will include a mix of commercial, retail and residential use.

Gardner Property - St. Louis

The Missouri Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Gardner Property site, located at 3643 Delmar Blvd. in St. Louis. The site is on a 1/2 acre parcel along Delmar Blvd. just south of the Veteran's Hospital on N. Grand. The one-story structure occupies most of the parcel and was most recently used as a warehouse. Suspected contaminants include asbestos and lead-based paint inside the building and two underground storage tanks in the adjacent parcel. The owner plans to redevelop the site into a restaurant and banquet center.



A vacant lot included in the Gardner property contained two underground storage tanks, which were removed.

All asbestos-containing materials were properly removed from the interior of the building and disposed of appropriately. The asbestos-containing materials abated included floor tiles, fire doors and thermal system insulation found on pipes.

Thermal system insulation was removed by the glove-bag technique, while the fire doors and floor tile were removed as non-friable asbestos-containing materials. The final report included waste manifests documenting proper disposal of the asbestos-containing materials.

Lead-based paint was found only on the main floor in two areas; on the east perimeter wall and on the structural support system (columns and beams). Both areas were washed with trisodium phosphate to remove dust and any flakes of loose lead-based paint. After drying and covering the areas with a lead-based paint encapsulant, final clearance wipe sampling was conducted. All wipe samples were found to be below the residential use criteria.

Diagrams depicting locations where the encapsulated lead-based paint remain were included in both the final report and in the lead-based paint Operations and Maintenance Plan. The lead-based paint Operations and Maintenance Plan was filed with St. Louis City Recorder of Deeds on Sept. 7, 2010.

Additionally, the site included a vacant lot adjacent to the building that contained two unregistered underground storage tanks. The underground storage tanks were removed and the pit area sampled in accordance with requirements contained in the Missouri Risk-Based Corrective Action guidance for tanks. A final report about the underground storage tank removal was approved in a letter dated Sept. 9, 2010. The department determined the site is safe for its intended use.

In February 2010, the Missouri Department of Economic Development awarded more than $425,000 in Brownfield Remediation Tax Credits to the owner to help in rennovating this property.

Van Brunt Street Car Barn - Kansas City

The Missouri Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Van Brunt Street Car Barn (former) site, located at East 9th Street and Van Brunt Blvd. in Kansas City. The property is currently unoccupied and all existing structures have been removed. Former uses for the site include electric street car maintenance, Area Transportation Authority bus maintenance and most recently a public works body shop and vehicle fueling facility. Land use in the vicinity of the site consists primarily of a mixture of commercial and residential properties.
One 7,520-gallon diesel underground storage tank and one 5,000-gallon gasoline underground storage tank were removed from the eastern portion of the site in 1991. Removal activities of additional structures, including one 5,000-gallon and five 1,500-gallon gasoline underground storage tanks, a heating oil tank and a vault, a building and a brick cistern occurred at the north western boundary of the site.

Following excavation activities, a site characterization assessment was performed. After review of the soil and groundwater analytical data, the Missouri Department of Natural Resources Tanks Section issued a letter of "No Further Action" dated March 3, 1993.

The City of Kansas City enrolled the site into the BVCP in 2009 to address contamination related to sandblasting and other historical activities. Groundwater investigation did not indicate any contamination on-site above the Missouri Risk Based Corrective Action guidance default target levels. No soil contamination was found on-site above the Tier 1 MRBCA risk based target levels for residential use. Metals found in soil, including arsenic, barium, cadmium, total chromium, lead and mercury were within the naturally occuring background concentrations for the region. The department determined the site is safe for its intended use.

Future land use of the site includes the construction of a community center and youth soccer fields.

Sites in Brownfields/Voluntary Cleanup

	Active	Completed	Total
JULY	297	574	871
AUGUST	295	579	872
SEPTEMBER	293	577	872

New Sites Received

July

Porter Oil Refining & Solvent Recovery Corp (former), St. Louis
Art Mint Limited (former), Kirkwood
2938 Thomas, St. Louis
2940 Thomas, St. Louis
2942 Thomas, St. Louis
2944 Sheridan, St. Louis
2944 Thomas, St. Louis
2945 Thomas, St. Louis
2946 Sheridan, St. Louis
2946 Thomas, St. Louis
2947 Thomas, St. Louis
2948 Thomas, St. Louis
2951 Thomas, St. Louis
2952 Thomas, St. Louis
2953 Thomas, St. Louis
2954 Thomas, St. Louis
2955 Thomas, St. Louis
2956 Thomas, St. Louis
2957 Thomas, St. Louis
Habitat for Humanity St. Louis-JVL Ward 19 2010 Project, St. Louis
Habitat for Humanity St. Louis-JVL Ward 19 2010 Project OU1, St. Louis

August

Odessa Meat Market (former), Kansas City

September

Pace-Olive Blvd. Redevelpment, Creve Coeur
Mason Street Gas Station, Cape Girardeau
Jordan Creek Realignment Project, Springfield

Sites Closed

July

Chemical Building, St. Louis
St. Louis Public Schools Special Education Building, St. Louis

August

Cupples Station Building 8, St. Louis
Cupples Station Building 9 , St. Louis
Interstate Grocery Building - Gryphon Building, Joplin

September

Gardner Property, St. Louis
Van Brunt Street Car Barn (former), Kansas City

Drycleaning Environmental Response Trust Fund

The Department of Natural Resources' Drycleaning Environmental Response Trust, or DERT, Fund provides funding for the investigation, assessment and cleanup of releases of chlorinated solvents from dry cleaning facilities. The two main sources of revenue for the fund are the dry cleaning facility annual registration surcharge and the quarterly solvent surcharge.

Registrations

The registration surcharges are due by April 1 of each calendar year for solvent used during the previous calendar year. The solvent surcharges are due 30 days after each quarterly reporting period.

Calendar year 2010	Active Dry Cleaning Facilities	Facilities Paid	Facilities in Compliance
Jan - Mar 2010	241	124	51.45%
April - June 2010	241	195	80.91%
July - Sept 2010	241	210	87.14%

Calendar year 2010	Active Solvent Suppliers	Facilities Paid	Suppliers in Compliance
Jan - Mar 2010	10	9	90%
April - June 2010	10	9	90%
July - Sept 2010	10	3	30%

Cleanup Oversight

Calendar Year 2010	Active	Completed	Total
Jan - Mar 2010	21	7	28
April - June 2010	21	7	28
July - Sept 2010	21	8	29

New Sites Recieved

August

Grandview Plaza, Grandview

New Sites Closed

August

Fosters Cleaners & Shirt Laundry, Blue Springs

Reimbursement Claims

The applicant may submit a reimbursement claim after all work approved in the work plan is complete and the fund project manager has reviewed and approved the final completion report for that work. The fund applicant is liable for the first $25,000 of corrective action costs incurred.

	Received	Under Review	Paid/Processed
July	4	2	1
August	2	4	1
September	1	7	3

	Received	Under Review	Paid/Processed
July	$124,113.51	$27,885.61	$10,762.70
August	$23,907.70	$74,954.89	$43,840.12
September	$43,742.40	$151,978.78	$77,239.05

Reimbursement Claims Processed:

American Cleaners (Southroads Shopping Center)	St. Louis	$54,583.79
Busy Bee Laundry	Rolla	$43,840.12
Park Lane Cleaners	Chillicothe	$10,762.70
Plaza Ford Ideal Laundry & Dry Cleaners Inc.	Kansas City	$7,888.72
Yorkshire Cleaners	Marlborough	$14,766.54

Total reimbursements as of Sept. 30, 2010: $1,280,161.00
DERT Fund Balance as of Sept. 30, 2010: $1,901,583.00

Inspections and Assistance

Regional Office Employees

- Conducted 145 hazardous waste generator compliance inspections:
  - 13 at large quantity generators.
  - 82 at small quantity generators.
  - 50 at conditionally exempt small quantity generators.
- Conducted two e-waste compliance inspections.
- Issued 75 Letters of Warning and three Notices of Violation requiring actions to correct violations.
- Made one compliance assistance visit to a hazardous waste facility. Compliance assistance visits are on-site visits with a representative of a facility. The visits are intended to improve the understanding of a permit, registration, certification, report or other similar requirement. Compliance assistance visits provide an opportunity to enhance compliance with environmental regulations.
- Received 71 citizen concerns regarding hazardous waste, 58 of which resulted in a field investigation.

Hazardous Waste Program Compliance and Enforcement staff

- Conducted 14 inspections of commercial hazardous waste treatment/storage/ disposal facilities.
- Conducted one inspection of a non-commercial hazardous waste treatment/ storage/disposal facility.
- Conducted 12 case development inspections.
- Conducted two focused compliance inspections.
- Referred two hazardous waste enforcement cases to the Attorney General's Office.
- Assisted in negotiating a final joint multi-site, multi-media Consent Judgment with the Doe Run Resources Corporation, resulting in more than $3.5 million to be paid in penalties to Missouri school funds over the next three years, plus improvements to the way the facility manages lead.
- Finalized a tolling agreement with Reckitt Benckiser, Springfield.

Tanks Compliance and Enforcement Unit

- To encourage even more communication between the regulated community and the department, the Tanks Compliance and Enforcement Unit has established an Internet listserv. This listserv is being used to provide updates, determinations and proposed rule changes that impact the regulated tanks community. Additionally, it will serve as a way for the regulated community to post questions and comments to the department.
- The unit is drafting rule changes pertaining to the operational aspects of underground storage tanks. With the rapid development of new equipment in recent years, this effort is geared toward updating the underground storage tank regulations to better align with the industry of today and help prevent future releases.
- The department began inspecting every new tank installation in 2009. Not only has this effort been very successful in confirming and documenting the equipment installed, but ensures installations are conducted in accordance with manufacturer requirements and industry standards.
- In addition to compliance and operational issues, the unit continues to use the expedited referral process previously approved by the Hazardous Waste Management Commission. Despite being short staffed, the dedicated efforts of those involved with this procedure have reduced the number of facilities without a documented financial responsibility mechanism.
- During this period, 33 facilities with financial responsibility violations were referred to the unit for enforcement action. Staff resolved 61 enforcement cases, 13 of which had financial responsibility violations. Twenty-seven facilities were referred to the Attorney General's Office for enforcement action, 23 of which included a financial responsibility violation.

Missouri Department of Natural Resources - Hazardous Waste Program
Compliance and Enforcement Section

Polychlorinated Biphenyl Inspector
The inspector conducted 37 compliance inspections at various types of facilities throughout the state. The reports are forwarded to EPA Region 7, which has authority for taking any necessary enforcement action regarding PCBs according to the Toxic Substances Control Act.

Hazardous Waste Transporter Inspector
The inspector conducted 45 commercial vehicle inspections, during which two vehicles were placed out of service. As part of the Commercial Vehicle Safety Association's protocol, the department sends the reports to the Missouri Highway Patrol. The transporter must certify to the Patrol the violations were corrected.

As of September 2010, there were 225 licensed hazardous waste transporters in Missouri.

Bazan Paint Company - St. Louis
Bazan Paint Company is a commercial painting company that was inspected in September 2008. Several violations were cited at their repair facility during the on-site inspection. Bazan failed to determine if their waste was hazardous, disposed of waste improperly, stored waste improperly and had several safety issues. Bazan agreed to pay a civil penalty of $3,000 to the St. Louis County School Fund and an additional $5,318.86 was suspended if the facility remains in compliance for two years. In addition, Bazan agreed to spend $15,381.14 to clean up abandoned drums behind Ron's Auto in Kansas City.

Brunson Instruments - Kansas City
Brunson Instrument has submitted their final penalty payment for a total of $5,000 to comply with the April 29, 2010 settlement agreement with the department and the Attorney General's Office. Pursuant to this agreement, an additional penalty of $4,968 will be owed if the facility has violations within two years after the date of the agreement. Violations cited during inspections and addressed in this agreement included the failure to update hazardous waste generator information; to package, mark and label hazardous waste containers during storage; conduct weekly inspections; properly manage satellite accumulation; and meet emergency requirements.

Missouri's New Electronic Scrap Management Rule
The Hazardous Waste Program's Hazardous Waste Enforcement Unit and Special Facilities Unit have reviewed 24 and approved 13 electronic scrap management rule plans. Under Missouri's new electronic scrap management rule, any covered computer equipment bought in Missouri after July 1, 2010, will come with a recovery plan from the manufacturer that specifies how they will collect and recycle that equipment when it is no longer wanted, at no cost to households and small businesses. Covered computer equipment purchased before July 1, 2010, and manufactured under a brand by a company still selling computers in Missouri will also be eligible for free and convenient recycling. The Hazardous Waste Program has also developed an online list of computer equipment manufacturers that have an approved recovery plan. This list, online at dnr.mo.gov/env/hwp/electronics/approvedplan.htm, provides links to manufacturer information telling the public how they can recycle their computers, laptops, monitors and all covered equipment.

New Listserv Postings
In July, the Enforcement and Compliance Assistance Listserv for Hazardous Waste Generators reviewed the five-part closure test for closed containers, clarified Missouri's position about the recent alternative closure guidance published by EPA and discussed common closure problems.

The August listserv discussed how to properly transport two common universal wastes, fluorescent bulbs and lithium batteries.

The last listserv of the quarter told the difference between transportation requirements for unbroken, universal waste fluorescent bulbs and broken, hazardous waste fluorescent bulbs.

You can signup to receive the monthly Enforcement and Compliance Assistance Listserv for Hazardous Waste Generators e-mail at dnr.mo.gov/env/subscribe_ecahwg.htm.

HWP Project Wins 2010 Governor's Technology Award

Since 2005, the Federal Facilities Section has partnered with the Missouri Wing Civil Air Patrol and the University of Missouri to capture and analyze aerial images. Recognizing the uniqueness and cost-savings produced by this partnership, the team is the recipient of the 2010 Governor's Award for Quality and Productivity in the Technology in Government category.

Through an agreement with the department, the Civil Air Patrol conducts flyovers of contaminated areas throughout the state. A special camera mounted to some Civil Air Patrol airplanes is able to detect many different substances by their wavelength, or location on the near visible and infrared light spectrum. These different substances show up as different colors through the camera after processing with special computer software. The resulting aerial photographs show department staff a lot about the health of the land, including if contaminants are spreading, if a landfill cover is doing its job or the location of hazardous chemical containers, like propane tanks, after floods or other disasters.

Simply put, the aerial photographs show where the contamination is located.

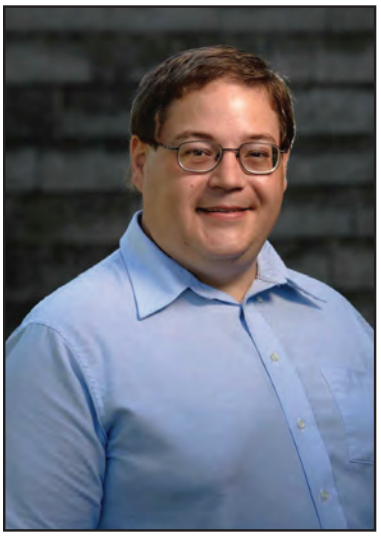
A flyover by a commercial aircraft would cost in excess of $20,000 a day. The Civil Air Patrol costs $2,000 a day for the same area of coverage. Expensive commercial imagery typically prevents state agencies from even considering flyovers or the use of hyperspectral imagery altogether. This project also provides flight time and training missions to the Civil Air Patrol pilots.

More information about hyperspectral imagery examples of images and how the department is using this technology is available online at dnr.mo.gov/env/hwp/hsi/hsi-project.htm.

Another team from the Federal Facilities Section was also nominated for the Governors Award for Quality and Productivity in the category of Efficiency/ Process Improvement. The Minuteman II Missile Site Aerial Inspection Project focused on using flyovers by the Civil Air Patrol at former Minuteman II Missile sites to make sure current land use is in compliance with restrictions due to contamination left in place. This project saved money and drive time and provided a more accurate picture of the site, as well as forming a successful partnership between the Air Force, EPA, the department and the Civil Air Patrol.

On-hand to accept the governor's award were: (front, from left) Kip Stetzler, Acting Department Director; Shawn Muenks, DNR; Nick Carbone, former DNR employee; Branden Doster, DNR; (second row) Ramona Huckstep, DNR; Joe Engeln, DNR; Lt. Col. Michael Smith, Missouri Wing Civil Air Patrol; Col. John Mais Missouri Wing Civil Air Patrol; (third row) Ruben Zamarripa, DNR; Maj. David Miller, Missouri Wing Civil Air Patrol; Maj. Mike Hackley, Missouri Wing Civil Air Patrol; Col. Sean Fagan, Missouri Wing Civil Air Patrol; (fourth row) Jim Belcher, DNR; Lt. Col. Randy Fuller, Missouri Wing Civil Air Patrol; Aaron Schmidt, DNR; Ronnie Lea, University of Missouri - Columbia MoRAP; Dr. Clayton Blodgett, University of Missouri - Columbia MoRAP.

Patrick Anderson named September 2010 Employee of the Month by Missouri Department of Natural Resources



Patrick Anderson was selected as the September 2010 Employee of the Month by the Missouri Department of Natural Resources. He is an environmental engineer with the federal facilities section, Hazardous Waste Program, Jefferson City, and displays exceptional skill as a state project manager at the Weldon Spring disposal site in St. Charles County.

In nominating Anderson for recognition, Branden Doster, one of his supervisors, said, "Patrick has become jack-of-all-trades within the federal facilities section; he helps out wherever there is need. In doing so he has developed a great deal of flexibility, knowledge and an ability to get along with others. He strives to build and maintain relationships with the many agencies and stakeholders at our federal facility sites."

Weldon Spring hosts one of the largest radioactive and hazardous waste disposal cells in the U.S. It is seven stories high, 45 acres wide and is located across the street from the Busch Conservation Area, an area that is environmentally sensitive and accessible to the public.

"Patrick ensures human health and the environment are protected, and the community is included in the decisions being made at the Weldon Spring site," said Doster.

Anderson has maintained a solid relationship with federal Department of Energy staff as well as their contractors and other state agencies represented at the Weldon Spring disposal site. He regularly attends both internal and public meetings regarding the site, and has provided contributions in technical matters, community relations and event planning.

In early 2009, Anderson was involved in adjourning the DOE-sponsored Weldon Spring Citizens Commission that had served the community since 1996. The commission's service had come to an end and the Department of Natural Resources took the opportunity to thank those citizens for their hard work and skills. Anderson was involved in securing proclamations from the legislature, assisting with the paperwork and picking up the finished product. He also assisted DOE, DNR and other agencies in providing representation at the event.

In fall 2009, Anderson assisted with a Department of Energy event that honored uranium workers. The event hosted nearly 400 former workers, their families and state and federal dignitaries. He attended many meetings and planning sessions, coordinated internally with department management and staff, and actively participated in the event.

"Patrick showed an easy-going attitude and willingness to work hard," said Doster. "His knowledge of the site and his communication style made for a well-coordinated, successful event that was highly publicized and honored the many citizens who supported the war effort."

Anderson's hard work is also a reminder that projects such as these are not the work of one person but the culmination of many working together to provide for the citizens of Missouri.

Missouri Department of Natural Resources - Hazardous Waste Program
Federal Facilities Section

In early 2010, working within the Hazardous Waste Program, Anderson helped sample sludge related to tannery operations near Cameron. He spent many days assisting the program's Superfund Section. They were short-handed and sampling needed to be done quickly due to the high profile of the case and the type of contaminants involved.

Nearly 700 soil samples were collected and had to be processed and analyzed with a complex field screening instrument known as a XRF, prior to shipment for further laboratory analysis. Anderson was present from the first day until the last day of the sampling effort – he was the only person on the team who was present every day.

According to Superfund Section Chief Dennis Stinson, "Having the continuity of Patrick's presence throughout the XRF analysis was absolutely invaluable to the project. Without his help, the sample analysis would not have finished within the tight time constraints."

Anderson started working for the department in January 2007 and lives in Jefferson City.

Letters of Agreement

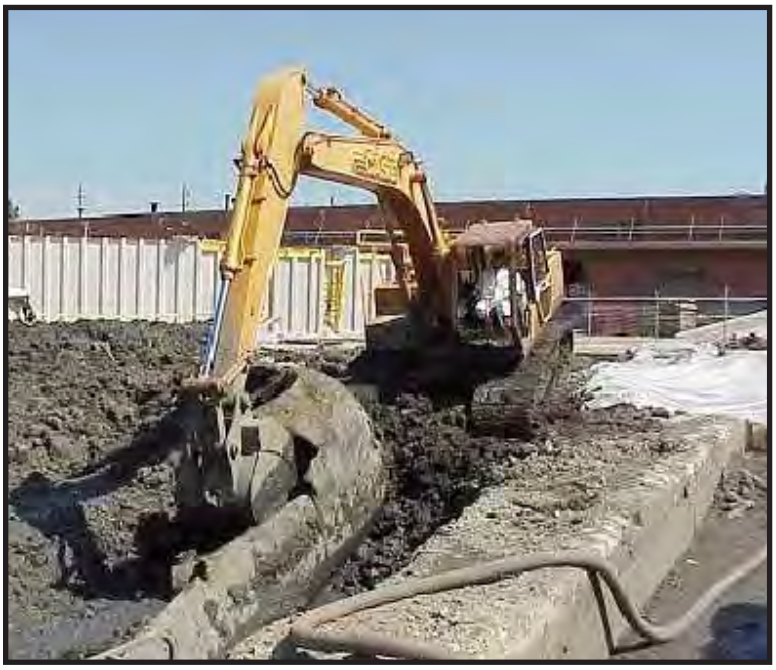
Introduction

The U.S. Congress passed the Resource Conservation and Recovery Act of 1976, also known as RCRA, to address public concerns about the management of hazardous waste. The Hazardous and Solid Waste Amendments to the act, which require facility-wide corrective action, were later passed in 1984. The Missouri Hazardous Waste Management Regulations incorporate the federal act and Hazardous and Solid Waste Amendments regulations by reference along with other requirements added by the State of Missouri. EPA authorized Missouri to implement a state hazardous waste program instead of EPA's due to its equivalency. Missouri's hazardous waste treatment, storage and disposal facilities are required to investigate and clean up releases of hazardous waste and hazardous constituents to the environment. These activities, known as corrective action, reduce risks to human health and the environment. The term "cleanup" is often used in association with corrective action activities such as:

- Removing or containing waste or contaminated media, such as soil or water.
- Treating the waste or contaminated media in place.
- Pumping, treating and disposing groundwater.
- Bioremediation.
- Various combinations of these approaches.

What are the regulatory options for these activities?

Historically, there were two formal regulatory instruments used to govern corrective action at active and former (interim status) treatment, storage and disposal facilities: permits and administrative orders. Many of the Missouri facilities currently performing corrective action do so under a Missouri Hazardous Waste Management Facility Part I Permit. Permits are used to govern corrective action when facilities are actively treating, storing or disposing of hazardous waste that would otherwise require the issuance of a permit. Permits are also used to govern corrective action at facilities that have closed hazardous waste land disposal units (e.g., landfills, surface impoundments) where releases to the environment have occurred and long-term post-closure care, including monitoring and cleanup, are required. In 1998, EPA created an alternative to permits by recognizing, through rulemaking, the use of legally enforceable administrative orders instead of permits for post-closure facilities. These rules were adopted by Missouri, and later authorized by EPA, and created another option to streamline activities and address historical difficulties encountered during the corrective action process.



Demolition during the expedited corrective action program at Cook Composites and Polymers in north Kansas City.

Missouri's administrative orders are typically referred to as Corrective Action Abatement Orders on Consent and are issued under state authority. Missouri administrative orders are normally negotiated with the facility, thus the term "On Consent;" however, they may also be issued without the facility's consent. Administrative orders are legally enforceable documents and contain essentially the same corrective action requirements that apply to permitted facilities. In limited instances, the state works with EPA to develop and implement corrective action orders for Missouri facilities issued under federal authority, RCRA Sections 3008(h), 7003 and 3013.

In the late 1990s, the department began developing a third regulatory option for corrective action. In October 2000, the Permits Section launched the Expedited Corrective Action Program, using a "Letter of Agreement."

Why was another instrument needed?
Former interim status treatment, storage and disposal facilities that do not require post-closure care for closed regulated units, and which closed after the effective date of the Hazardous and Solid Waste Amendments to the act, are not required under state and federal regulations to get a permit, but they still have corrective action obligations. According to Missouri law, these facilities are not eligible to perform corrective action under Missouri's Brownfields/Voluntary Cleanup Program. Before October 2000, state and federal corrective action orders were the only other regulatory instruments available to regulate corrective actions at these facilities to ensure protection of human health and the environment. Traditional Corrective Action Orders often took at least a year and some times much longer to develop and implement with investigation. Cleanup activities could take many years to decades to complete. The Permits Section launched the Expedited Corrective Action Program because of the statutory prohibition of corrective action facilities entering the Brownfields/Voluntary Cleanup Program and the desire of some facilities to be proactive and complete their cleanup obligations faster.

Letters of Agreement
The Permits Section developed Letters of Agreement as a new regulatory instrument for treatment, storage and disposal facilities that do not require a permit. The Letter of Agreement concept was developed to streamline the corrective action process, to allow a piece of property to be cleaned up as quickly as possible and to help future redevelopment. The department and EPA developed a memorandum of understanding to establish mutually-agreeable parameters for implementing the Expedited Corrective Action Program using Letters of Agreement. This memorandum of understanding and a "model" Letter of Agreement is available on the department's website at www.dnr.mo.gov/env/hwp/permits/ecap.htm. Electronic versions of some executed Letters of Agreement are online at www.dnr.mo.gov/env/hwp/permits/activepa.htm.

Voluntary corrective action without a regulatory instrument or substantial agency oversight is done "at risk." Facilities that perform corrective action under a Letter of Agreement have assurances the investigation and clean up will be accepted by both the department and EPA because both agencies know every step of the process, have the ability to comment and can make suggestions.

What is a Letter of Agreement?
A Letter of Agreement is similar to the voluntary, informal, non-legally binding, "handshake" agreements between a facility and the department's Brownfields/Voluntary Cleanup Program. It describes the expectations, responsibilities and roles of both the facility and the department with respect to the corrective action activities. A Letter of Agreement speeds up corrective action at a facility, but can be ended at any time by either the facility or department. If the Letter of Agreement is ended, the department retains the authority to require further corrective action if necessary and the facility is unwilling or unable to complete such action under the Letter of Agreement.

Letters of Agreement contain many of the same requirements as Missouri Hazardous Waste Management Facility Part I Permits and Corrective Action Orders. Some of the general requirements in a Letter of Agreement include:

- A brief description of how the agreement will be implemented and how the actions taken under the agreement will be protective of human health and the environment.
- An outline of activities that must be conducted.
- The steps needed for review and approval of corrective actions at the facility and any associated plans and reports.
- Financial assurance requirements and what costs the department can recover associated with review of the technical and regulatory aspects of corrective action plans, reports, documents and associated field activities.
- Other general provisions such as definitions, agreement modification procedures, stipulations for termination of the agreement, site access agreements and general reservations of rights for the department and facility.

By identifying the corrective action activities to be performed, the facility is able to streamline the process by moving forward on several paths at the same time. The corrective action process may include the following activities:

1. The facility provides a formal Description of Current Conditions Report describing all past and present operations at the facility, including past disposal practices and all available information about releases of hazardous waste and hazardous constituents into the environment from the facility. This is normally accomplished as an update to a RCRA Facility Assessment Report, historically prepared by EPA, its contractors or the department.

2. After the facility and the department agree with the report, the facility will submit a proposed RCRA Facility Investigation Work Plan to the department for approval. The work plan outlines the investigation of areas identified in the Description of Current Conditions Report where more information is needed. After the department approves the work plan, the facility performs the investigation. When the investigation is complete, the facility submits a RCRA Facility Investigation Report to the department about the investigation findings.

3. If some form of cleanup appears to be needed based on the RCRA Facility Investigation findings, either due to comparison of environmental contamination levels with established risk-based screening levels or a more in-depth risk assessment, the department may require the facility to complete a Corrective Measures Study. During the study, the facility will look at several final remedy options to clean up the facility, including any off-site releases. At the end of the study, the facility submits a Corrective Measures Study Report to the department providing a detailed comparison of each option and recommending a proposed final remedy for the facility. The facility can combine this step with the RCRA Facility Investigation and present the proposed final remedy in the RCRA Facility Investigation Report.

4. After the Corrective Measures Study Report and its recommendations are accepted, the proposed final remedy is made available to the public for review and comment. This is one aspect of a Letter of Agreement different from a permit or an order. When corrective action is performed under a permit or an order, the department completes all public notice requirements. When corrective action is performed under a Letter of Agreement, the facility takes a more active role in the public notice process, with department review and approval before the documents are made public.

5. After the public comment period ends, the department reviews and considers all comments received during the public comment period. Only after the public comment period has ended will the department make a decision regarding the final remedy.

6. After the department selects and approves the final remedy, the facility implements the remedy. After the facility completes construction of the final remedy, the facility submits a Final Remedy Implementation Report to the department. This report is a summary of the corrective action activities performed and a detailed description of any long-term operation and maintenance or monitoring program associated with the final remedy. During this step of the process the facility is normally required to provide financial assurance to cover the cost of any long-term operation, maintenance and monitoring of the final remedy until the corrective action is complete. (e.g., established cleanup levels have been met and confirmed in all contaminated environmental media).

Advantages

One of the main advantages of performing corrective action under a Letter of Agreement is the cooperative relationship developed between the facility and the department. Before Letters of Agreement were available, all Missouri treatment, storage and disposal facilities were issued a hazardous waste permit or Corrective Action Order, or worked in an "at risk" voluntary fashion, to address corrective action requirements at the facility. Letters of Agreement are completely voluntarily and if either party decides the agreement is not working, they have the option to withdraw from it. Letters of Agreement allow the department and the facility to use resources more efficiently to address the corrective action requirements. They also allow the facility the flexibility to schedule work and set budgets, allowing them to set their own pace. Since the corrective action activities are clearly laid out to reach the end of the process, it may be possible for a facility to perform several activities at the same time in order to reach the end more quickly.

This process allows streamlining of the corrective action process without being any less protective of human health or the environment when compared to activities conducted under permits or orders. At the same time, the facility may be able to complete the corrective action activities necessary to be released from regulation as a hazardous waste treatment, storage and disposal facility subject to the corrective action requirements of the Missouri Hazardous Waste Management Law and regulations and federal Hazardous and Solid Waste Amendments.

Potential Pitfalls

Despite the overall advantages there a few potential pitfalls in the use of Letters of Agreement. One can be a misunderstanding by the facility about what is expected. While a Letter of Agreement is designed to streamline the administrative aspects of the corrective action process, the technical or regulatory requirements are typically equivalent to those handled under permits or an order.

Unlike permits and orders, a Letter of Agreement does not provide any formal dispute resolution procedures. During the corrective action process, disagreements can occur between the facility and department. These disagreements may be as simple as different views on how best to perform the investigation or may be complicated disagreements about determining what final remedy to select. Under a Letter of Agreement, the parties obligate themselves to work informally to resolve any disputes. If a resolution cannot be reached, either party may withdraw from the Letter of Agreement.

Since it is voluntary, Letters of Agreement do not contain any "hard" enforcement mechanisms or penalty provisions. Meaning that, unlike a permit or an order, an agreement does not contain any penalties for failure to perform as outlined in the agreement. However, the department always reserves the right to terminate the agreement and pursue other enforceable regulatory instruments, like an order, if the facility does not follow the Letter of Agreement provisions in "good faith."

Letter of Agreement Projects to Date
A former DuPont plant in Moberly and the former Thomas & Betts facility in St. Louis were the first Letter of Agreement pilot projects. DuPont completed corrective action in 18 months without a formal agreement, but followed the general provisions of one. The former Thomas & Betts facility was the first to perform corrective action under a Letter of Agreement prototype and completed cleanup activities in 21 months. Similar projects have taken several years to complete under traditional corrective action orders.

Following the initial success of the DuPont and Thomas & Betts projects, the department had several facilities sign Letters of Agreement through its outreach efforts with eligible facilities. Facilities with signed Letters of Agreement currently participating in the Expedited Corrective Action Program include:

- Ashland Chemical in St. Louis.
- Cook Composites and Polymers in Kansas City.
- Dow Chemical Company in Pevely.
- River Cement Company in Festus.
- Sigma-Aldrich Inc. in St. Louis.
- Univar USA Inc. in Berkeley and Kansas City.

Several other candidate facilities are considering entry into the Expedited Corrective Action Program through a Letter of Agreement. The Permits Section intends to take these facilities on as time and resources allow. Most of the above facilities would not have been proactive in addressing their corrective action obligations were it not for the option of entering into a Letter of Agreement. They would simply have waited for the department to pursue corrective action orders at some undetermined future time.

Corrective Action and Permitting Related Facility Updates

Archimica Inc. - Springfield
The Missouri Department of Natural Resources and EPA Region 7 issued a final remedy decision and final hazardous waste permits to Archimica Inc. The department issued the final Missouri Hazardous Waste Management Facility Part I Permit. EPA issued the final Hazardous and Solid Waste Amendments Part II Permit. The final permits require Archimica to implement the approved final remedy for on-site groundwater and soil contamination and perform post-closure care for a closed surface impoundment.

Archimica currently operates a pharmaceutical chemical manufacturing facility at 2460 West Bennett St. in Springfield. Until the early 1980s, the facility operated a 300,000 gallon surface impoundment, settling pit, aeration basin and underground pipe system as part of its wastewater treatment system. These areas were closed during the late 1980s. The department accepted the closure certification

for the surface impoundment on Oct. 25, 1990. Corrective action and post-closure care activities continue at the facility due to soil and groundwater contamination. An investigation confirmed the major sources of contamination on-site include the former settling pit, former surface impoundment, former underground pipe system and the contaminated sewer pipes at Building 14. The contaminants include a variety of chemical solvents and other chemicals used in pharmaceutical manufacturing. The department and EPA selected enhanced institutional controls, dense non-aqueous phase liquid recovery, surface water monitoring, groundwater containment monitoring and continued monitoring and maintenance of the closed, capped former surface impoundment as the final remedy for the soil and groundwater contamination.

Ashland Inc. - St. Louis
The Missouri Department of Natural Resources and EPA Region 7 issued a final remedy decision to Ashland Inc. Ashland operated an interim status hazardous waste storage facility at 7710 Polk St. in St. Louis. There are two known historical releases of hazardous waste at the facility. In January to June 1989, twenty cubic yards of perchloroethylene-contaminated soils were transported off-site in response to a 200-gallon spill. In 1990, an estimated 112 gallons of Hi-Sol 10 was released as the result of a leaking underground pipe during the unloading of a tanker car. Several site investigations were performed at Ashland from 1990 to 2004. Based on analytical results, the request for information, dated June 2005, concluded no further cleanup of soil appeared necessary. Analytical results also indicated natural attenuation was occurring at the on-site Hi-Sol 10 plume source and surrounding areas. The department and EPA selected monitored natural attenuation and institutional controls as the final remedy for the groundwater contamination.

EaglePicher Technologies, LLC - Joplin
On Sept. 28, the department and EPA Region 7 issued final hazardous waste permits to EaglePicher Technologies, LLC. The department issued the final Missouri Hazardous Waste Management Facility Part I Permit, which requires EaglePicher to continue to monitor, maintain and perform post-closure activities on the closed lead chemicals settling pond due to lead contamination in the soil and groundwater. The Part I Permit also contains corrective action conditions to address releases to the environment from solid waste management units or areas of concern as necessary. EPA issued the final Hazardous and Solid Waste Amendments Part II Permit under federal authority to address regulatory requirements of Hazardous and Solid Waste Amendments for which the state is not yet authorized.

EaglePicher, a wholly owned subsidiary of OM Group Inc., operates a manufacturing facility at C and Porter Streets in Joplin. EaglePicher currently designs and manufactures batteries, battery management systems and energetic devices for the defense, aerospace and medical industries. EaglePicher previously operated a chemicals facility that manufactured specialty lead chemicals for compounding lubricants, paint and primer pigments, dye colors and vinyl stabilizers, as well as other lead compounds. Certain types of hazardous wastes were produced as part of the lead chemicals manufacturing operations. EaglePicher operated two hazardous waste surface impoundments, the lead chemicals settling pond and mercury waste impoundment. Both impoundments were closed in 1989 according to a department-approved closure plan. Post-closure care for the closed mercury impoundment was terminated in April 2003.

Kansas City International Airport (MCI) Maintenance Base – Kansas City
The Missouri Department of Natural Resources and EPA Region 7 issued final hazardous waste permits to the City of Kansas City and American Airlines for the Kansas City International Airport Maintenance Base. The final permits contain provisions to continue post-closure care activities for two surface impoundments and one landfill and continue the groundwater monitoring program to define the extent, rate of migration and magnitude of groundwater contamination at the site, in addition to determining the effectiveness of the corrective action measures implemented at the site. The final Missouri Part I Permit also includes changes proposed in a Class 3 Permit Modification request submitted by American Airlines on June 13, 2006. These modifications include switching from a compliance monitoring to a corrective action monitoring program and changing the existing groundwater monitoring program. The changes to the groundwater monitoring program include, among other things, reducing the sampling frequency from a semi-annual to an annual basis, revising the indicator parameters being analyzed and changing the number of wells included in the groundwater monitoring program.

During the public comment period, American Airlines commented that the name of the facility should be designated in the permit as the Kansas City International Airport Maintenance Base instead of the American Airlines Maintenance and Engineering Base. The department had no objections to making the name change and the final Part I Permit was revised accordingly.

Both the state's hazardous waste (Part I) permit and EPA's (Part II) permit were issued to the City of Kansas City as the owner and to American Airlines Inc. as the operator. American Airlines Inc. filed a Notice of Appeal with the Missouri Administrative Hearing Commission and EPA's Environmental Appeals Board, regarding being named the operator on the permits. An evidentiary hearing for the state's Part I Permit appeal before the Missouri Administrative Hearing Commission is currently scheduled for Tuesday, Feb. 8, 2011. On Oct. 26, 2010, the Environmental Appeals Board granted EPA's motion to stay the proceedings for the EPA's Part II Permit appeal until April 25, 2011.

Millennium Environmental Inc. – Scott City
The Missouri Department of Natural Resources and EPA Region 7 approved the final remedy of no further corrective action at the former Millennium Environmental Inc., or MEI, facility. The department terminated the company's Missouri Hazardous Waste Management Facility Part I Permit effective Oct. 30, 2010. EPA terminated the company's Hazardous and Solid Waste Amendments Part II Permit, effective immediately. The company has been released from regulation as a hazardous waste treatment, storage and disposal facility subject to the corrective action and permitting requirements of the Missouri Hazardous Waste Management Law and federal Hazardous and Solid Waste Amendments.

The company operated a commercial hazardous waste treatment and storage facility located at 3100 Industrial Fuels Dr. in Scott City. The company blended and consolidated hazardous wastes for fuel and stored hazardous waste in tanks and containers at the facility. The company abruptly stopped operating in early 2001 and filed for bankruptcy. The department found 1,300 containers of hazardous waste left in the warehouse by the owner. A default judgment was signed on Oct. 11, 2001, ordering closure of the facility and revocation of the company's hazardous waste permits following closure. The department hired Sunbelt Environmental Services Inc. to properly remove and dispose of the remaining hazardous waste at the site. The department determined the former Millennium Environmental Inc facility was closed according to the approved closure plan and met the requirements of the Missouri Hazardous Waste Management Law. No further corrective action is required at this facility. Inter-Rail Systems Inc. currently operates the facility as a non-hazardous waste recycling center.

Vienna Wells added to National Priorities List

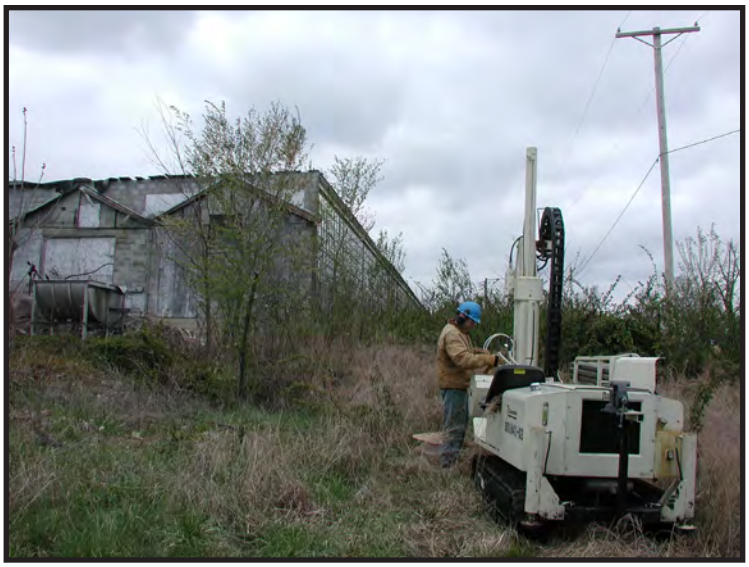
In September, EPA announced seven hazardous waste sites would be added to the National Priorities List of Superfund sites. One of these sites is in Missouri, the Vienna Wells site in Vienna.

Now that it has been added to the National Priorities list, this site is eligible for extensive, long-term response action money authorized by Congress under the Superfund program.

While EPA is now leading the cleanup and investigation of the Vienna Wells site, the department will continue to be involved by coordinating activities with EPA, reviewing documents and, possibly in the future, overseeing maintenance work.

History of the Department's Involvement

In 2007, the Water Protection Program's Public Drinking Water Branch requested the Superfund Section of the Hazardous Waste Program conduct an investigation of the public drinking water wells serving the 628 residents of the city of Vienna. Routine monitoring reports detected the presence of tetrachlorotheylene, also known as PCE. PCE is not a naturally occurring compound in the environment.



The investigation of the Vienna Wells site included collecting soil borings from around the Langenberg Hat Factory.

Under the authority of the Comprehensive Environmental Response, Compensation and Liability Act as amended, the Superfund Section began an investigation consisting of several site visits, two public meetings and collecting samples of surface and subsurface soil, private drinking water wells, public drinking water wells and tree cores.

PCE was first detected in Well #1 in 1994. Well #1 was taken out of service and Well #3 was put into service in late 1994. Well #2 was never used to supply water because of aesthetic concerns caused by high iron levels. Well #3 contained a low level of PCE when it was sampled in 1997. Levels of PCE in Well #3 have been slowly increasing, briefly exceeding the maximum contaminant level of 5 micrograms per liter, equivalent to 5 parts per billion in 2006 and then exceeding it from the 4th quarter of 2008 through the 4th quarter of 2009. The maximum contaminant level is determined by EPA as the maximum amount of a contaminant that is allowed in public drinking water.

Along with slowly rising levels of PCE in Wells #1 and #3, PCE was detected in the surface and subsurface soil of the former Langenberg Hat Factory, a former hat factory in Vienna, which is located 160 yards southeast of Well #3. Twenty-two soil samples were collected at the former hat factory. PCE was detected in 12 of the soil samples, with six of the samples reporting PCE at levels above the Missouri Risk Target Level for migration to groundwater level. Five of the subsurface soil samples with the highest concentrations were located in a 504 square foot area located northeast of the former hat factory building.

No PCE was detected in the 23 private wells or the 32 vegetative core samples that were collected.

The site inspection conducted by the Superfund Section was completed in March 2009. The report documented the release of PCE to the subsurface soil at the former Langenberg Hat Factory and that the Vienna public drinking water wells are contaminated with PCE. The Vienna Wells Site was eligible for listing on the National Priorities List and the preparation of a hazard ranking system package was recommended.

Wooden hat forms still remain in the Langenberg Hat Factory.

The site was recommended for NPL listing in spring 2010. A public meeting was held by EPA on March 11, 2010 during which Superfund staff did a brief presentation of the investigation and why the site was turned over to EPA. EPA discussed the National Priorities List process and the remedial activities that can occur after the site is listed.

Missouri Department of Natural Resources - Hazardous Waste Program Tanks Section

American Recovery and Reinvestment Act Underground Storage Tank Project

The Missouri Department of Natural Resources received $3.254 million from EPA to assess and clean up contamination released from federally regulated underground storage tanks, or USTs. This money was received as part of the American Recovery and Reinvestment Act of 2009.

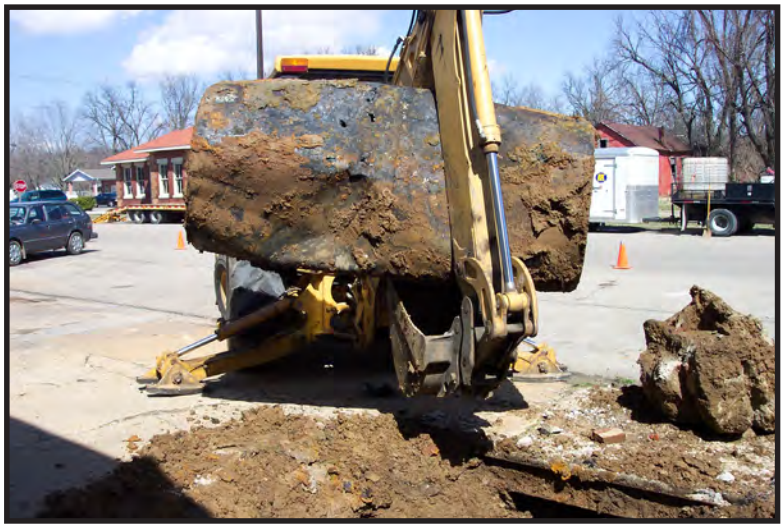
Abandoned underground storage tanks pose environmental threats and economic development barriers to redevelopment and reuse of properties. This project is helping to remove those barriers at a number of contaminated sites. This project is a positive step towards providing economic stimulus to the consultants and subcontractors doing tanks work, creating and maintaining jobs, expanding existing businesses, creating new business and clearing the way for communities in Missouri to redevelop and reuse these properties in a productive manner.

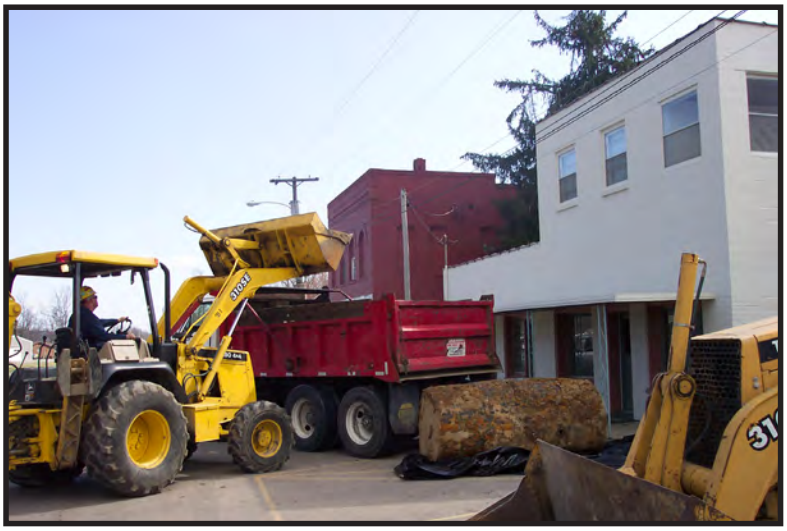
Albert Cook Garage - Oran

On Dec. 31, 2009, the Missouri Department of Natural Resources contacted the current owner of the property regarding the availability of Recovery Act funds for addressing potential petroleum-based contamination at abandoned underground petroleum storage tank sites. The facility was on the abandoned list because the known tanks were last used in the early 1970s, prior to regulations for operation and closure.

On Feb. 15, 2010, staff from the department's Tanks Section provided guidance and oversight to an environmental consulting firm in their endeavor to collect subsurface environmental information at the site. Based on the findings of the environmental investigation of the property the department determined contamination source removal activities were needed.

Representatives of the department's tanks section were present March 11 and 12 in order to provide guidance and oversight to an environmental consulting firm as contamination source removal activities were underway. As part of the source removal, two 550-gallon tanks were removed and approximately 62 tons of contaminated soil was hauled to an approved land farm facility for remediation. Final sampling occurred before the tank pit was filled with clean materials.





Top: An underground storage tank is removed from the Albert Cook Garage site in Oran. Bottom: Sixty-two tons of contaminated soil was removed from the Albert Cook Garage site.

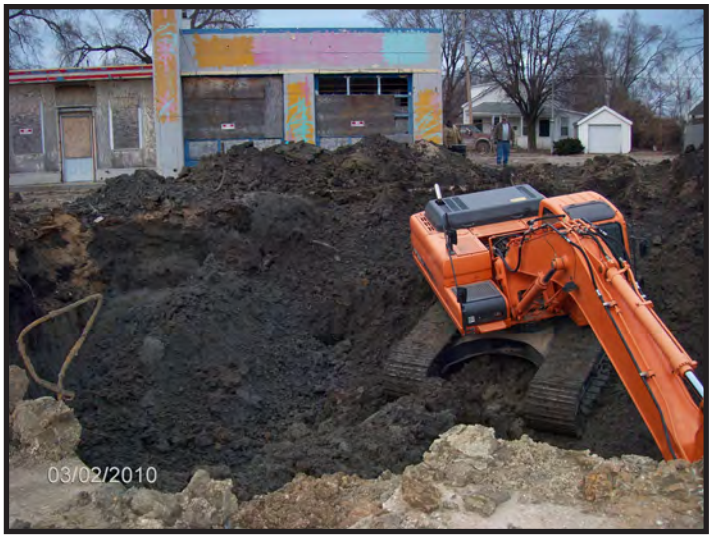
The Recovery Act associated activities conducted at the site have enabled the department to determine there is no unacceptable risk to human health or the environment.

A No Further Remedial Action Letter was issued for the site on Aug. 6, 2010. The Recovery Act funding allowed the facility to be used safely for temporary housing as well as a storage facility.

Total Recovery Act Investment: $21,013.12

Former Skip's Service Center & Auto - St. Louis

The Missouri Department of Natural Resources was contacted by the current owner of the former Skip's Service Center & Auto in St. Louis after learning about the availability of Recovery Act funds for addressing potential petroleum based contamination at abandoned underground petroleum storage tank sites.



The department provided guidance and oversight for contamination source removal activities at the Skips Service Center & Auto site in St. Louis.

On Jan. 26 and 27, 2010, staff from the department's tanks section provided guidance and oversight to an environmental consulting firm in its endeavor to collect subsurface environmental information at the site.

The department determined contamination source removal activities were needed based on the findings of the environmental investigation of the property.

Representatives of the tanks section were present March 1 through March 3 to provide guidance and oversight to another environmental consulting firm as contamination source removal activities were underway.

The recovery funds were used at the site in order to conduct subsurface investigation and contamination source removal activities. Evaluations based on the information gained from those activities have enabled the department to determine the site does not pose an unacceptable risk to human health or the environment.

On May 6, 2010 the department drafted a No Further Action Letter regarding the site. Redevelopment of the property, reportedly into a car washing facility, should begin soon.

Total Recovery Act Investment: $ 126,685.16

National Tanks Conference and ASTSWMO meeting held Sept. 20 to 23

Staff from the Tanks Section and Compliance/Enforcement Section attended the National Tanks Conference at the end of September 2010. As in years past, this conference has been very beneficial in discussing events concerning the management and implementation of rules and regulations. The department benefits from the variety of exposure by program and regional staff found at this conference. At the conference, states report about innovations and lessons learned. This is also the primary forum where EPA and states forge policy and new initiatives. In addition, staff is able to meet and discuss issues with their counterparts in other states. These contacts are often called upon throughout the year for ideas and input.

Topics attended by staff included:

- Alternative fuels and compatibility testing.
- Release fate and transport, etc.
- Federal regulation revisions.
- Financial assurance issues.
- Community engagement issues.
- National backlog draft study.
- Operator training issues.
- Free product recovery techniques and issues.
- Biofuels and leak detection.
- Long-term stewardship at leaking underground storage tank sites.
- Corrosion protection.
- Spill prevention.
- Leak scene investigations.
- Leak case studies.
- Tanks inspections and installations.
- Tank enforcement issues.
- Good tank management.

Additionally, Ken Koon, Tanks Section Chief also attended the Association of State and Territorial Solid Waste Management Officials, or ASTSWMO, Underground Storage Tank Task force meetings held in conjunction with the conference. The ASTSWMO UST Task Force discussed upcoming revisions to federal tank law, compliance and cleanup issues dealing with alternative fuels and operator training, among other issues.

Petroleum Storage Tanks Regulation March 2010

Staff Productivity	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	TOTAL
Documents received for review	183	230	162	0	0	0	0	0	0	0	0	0	575
Remediation documents processed	193	149	164	0	0	0	0	0	0	0	0	0	506
Closure reports processed	14	14	12	0	0	0	0	0	0	0	0	0	40
Closure notices approved	8	2	4	0	0	0	0	0	0	0	0	0	14
Tank installation notices received	2	2	6	0	0	0	0	0	0	0	0	0	10
New site registrations	2	1	4	0	0	0	0	0	0	0	0	0	7
Facility Data													
Total active and closed USTs	40,113	40,117	40,130	0	0	0	0	0	0	0	0	0	
Total permanently closed USTs	30,539	30,571	30,595	0	0	0	0	0	0	0	0	0	
USTs active and temporarily closed	9,526	9,501	9,480	0	0	0	0	0	0	0	0	0	
USTs in temporary closure	918	889	883	0	0	0	0	0	0	0	0	0	
Total hazardous substance USTs	394	394	395	0	0	0	0	0	0	0	0	0	
Facilities with active USTs	3,606	3,592	3,586	0	0	0	0	0	0	0	0	0	

Closures

Underground Storage Tanks	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	TOTAL	All Yrs
Closure Reports Reviewed	14	14	12	0	0	0	0	0	0	0	0	0	40	
Closure Notices Approved	8	2	4	0	0	0	0	0	0	0	0	0	14	
Number of Tanks Closed (Closure NFA)	14	51	49	0	0	0	0	0	0	0	0	0	114	

Cleanup

Underground Storage Tanks	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	TOTAL	All Yrs
UST release files opened this month	6	10	10	0	0	0	0	0	0	0	0	0	26	6,242
UST cleanups completed this month	8	16	21	0	0	0	0	0	0	0	0	0	45	5,342
Ongoing UST cleanups	911	905	900	0	0	0	0	0	0	0	0	0		
Aboveground Storage Tanks														
AST release files opened this month	0	1	1	0	0	0	0	0	0	0	0	0	2	441
AST cleanups completed this month	2	1	0	0	0	0	0	0	0	0	0	0	3	274
Ongoing AST cleanups	166	166	167	0	0	0	0	0	0	0	0	0		
Both UST and AST														
Total release files-both UST & AST	0	0	0	0	0	0	0	0	0	0	0	0	0	69
Cleanups completed-both UST & AST	0	1	0	0	0	0	0	0	0	0	0	0	1	42
Ongoing cleanups-both UST & AST	28	27	27	0	0	0	0	0	0	0	0	0		
Unknown Source														
Total release files-unknown source	1	1	3	0	0	0	0	0	0	0	0	0	5	290
Cleanups completed-unknown source	1	1	5	0	0	0	0	0	0	0	0	0	7	180
Ongoing cleanups-unknown source	126	122	110	0	0	0	0	0	0	0	0	0		
Documents Processed	193	149	164	0	0	0	0	0	0	0	0	0	506	
***Reopened Remediation Cases**	0	0	0	0	0	0	0	0	0	0	0	0	0	78

Effective December 2008 tanks with unknown substance will be included in total figures. Some measures are re-calculated each month for all previous months to reflect items added or edited after the end of the previous reporting period.